

FILTRATION MEDIA



FILTER-AG PLUS® FILTRATION MEDIA PARTICULATE REDUCTION MEDIA

Filter-Ag Plus (P/N Filter-Ag Plus) is a clinoptilolite natural media with a large surface area and microporous structure, which can be used as a highly efficient filter media for the reduction of suspended matter.

Due to void spaces as small as 3 microns, Filter-Ag Plus creates a surface area over 100 times greater than silica sand. The angularity of the granules and the tapered internal pore spaces allow for reduction of dirt, silt, and organic matter suspended in water by bridging, straining, and adhesion.

Filter-Ag Plus can be applied to systems designed for either pressure or gravity flow. Because of its unique physical characteristics, Filter-Ag Plus can be used to replace multimedia (graded density) filter designs.

FEATURES

- Particle structure creates less pressure loss, higher sediment loading, longer filter runs, and reduced backwash frequency
- Deep bed filtration results in superior water quality and reduces the load on downstream equipment
- High service rates result in lower equipment costs
- All-natural, environmentally safe product
- Certified to NSF/ANSI/CAN Standard 61

Notes

1. Influent water quality and effluent requirements may affect operating parameters.
2. A gravel support bed is required.
3. Allow bed to saturate before initial backwash.

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Filter-Ag Plus® is a registered trademark of Clack Corporation.

Physical Properties

Color.....	White to off white
Bulk Density.....	50 lb per cu.ft.
Effective Size	0.55 mm
Uniformity Coefficient.....	1.8
Hardness (Mohs scale).....	4 to 5
Mesh Size	14 x 30
Specific Gravity	2.2 gm per cc

Conditions for Operation

pH.....	Wide range
Maximum Temperature	140°F (60°C) *
Bed Depth.....	24 to 48 inches **
Freeboard	50% of bed depth
Service Flow Rate	6 to 15 gpm per sq.ft. ***
Backwash Flow Rate	14 to 18 gpm per sq.ft.
Backwash Bed Expansion	30 to 40% of bed depth

Packaging

1 cu.ft. bags (50 lb net weight)
40 bags per pallet (2,050 lb net weight)

* Media can be steam cleaned.

** 36 inches for optimal filtration.

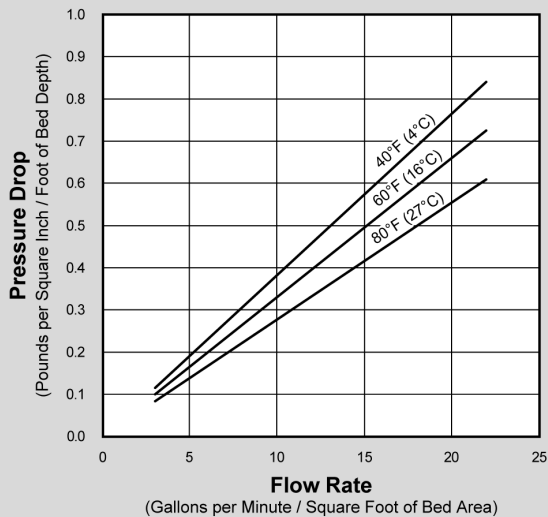
*** With intermittent peak flow of 20 gpm per sq.ft.

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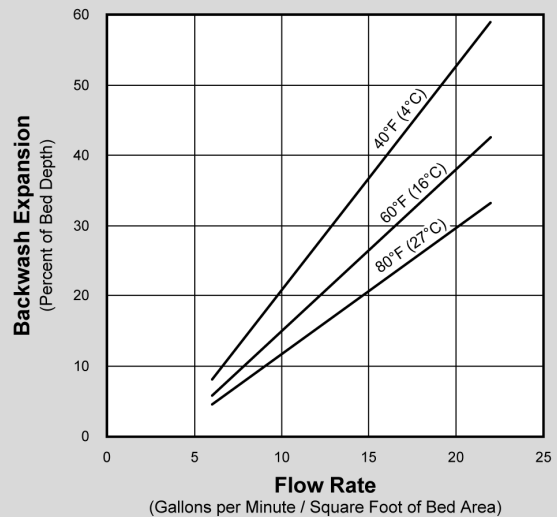
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Service Flow Pressure Drop



PRESSURE DROP — The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.

Backwash Bed Expansion



BACKWASH — The graph above shows the expansion characteristics as a function of flow rate at various temperatures.

AIR SCOUR

Air scour is possible and helpful when there is heavy loading in the bed. It has to be done minimally in order to prevent too much bed lift and/or advanced attrition.

An air scour of 1 to 2 cfm/sq.ft. at backwash rates of 15 to 20 gpm/sq.ft. would be sufficient. The pressure required would be static head pressure plus the psi necessary to deliver 1 to 2 cfm/sq.ft. Bed expansion should be observed to ensure that media is not being discharged in the backwash water. A one minute air scour at the beginning of the backwash cycle should be sufficient. Prolonged air scour may cause stratification of the smaller media to the top of the bed which could affect future head loss.

CALIFORNIA PROPOSITION 65 WARNING: This product contains crystalline silica which is known to the State of California to cause cancer and other substances which are known to the State of California to cause cancer, birth defects, and reproductive harm.